

I. AMENDMENTS

AMENDMENTS TO THE CLAIMS

Cancel claims 2, 5, 6, 17-19, and 44-48 without prejudice to renewal.

Please enter the amendments to claims 1 and 13, as shown below.

1. (Currently amended) A non-human transgenic mammal comprising a transgene comprising a nucleotide sequence encoding a stearoyl coenzyme A fatty acid desaturase having delta 9 desaturase activity, wherein said fatty acid desaturase-encoding nucleotide sequence is operably linked to a mammary gland-specific promoter, wherein the transgene is expressed in a mammary gland epithelial cell of said mammal, wherein said transgene is chromosomally integrated, and wherein said mammal produces milk comprising a level of monounsaturated fatty acids (MUFA) that is at least 5% higher than the level of MUFA in milk produced by a non-transgenic mammal of the same species.

2. (Canceled)

3. (Previously presented) The transgenic non-human mammal according to Claim 1, wherein said mammal is an ungulate.

4.-12. (Canceled)

13. (Currently amended) A method for producing a non-human transgenic mammal of claim 1, said method comprising:

(a) introducing a fatty acid desaturase transgene into a single-celled embryo, forming a genetically modified embryo, wherein said transgene comprises a nucleotide sequence encoding a stearoyl coenzyme A fatty acid desaturase (SCD) and wherein said fatty acid desaturase SCD-encoding nucleotide sequence is operably linked to a mammary gland-specific promoter; and

(b) transferring the genetically modified embryo into a recipient female of the same species as the embryo, wherein the genetically modified embryo develops into a transgenic mammal in the female.

14. (Previously presented) The method according to Claim 13, wherein said transgenic mammal is chosen from a mouse, a rat, a rabbit, a pig, a sheep, a goat, and a cow.

15. (Previously presented) The method according to Claim 13, wherein said transgene is expressed in mammary gland cells of said mammal.

16.-19. (Canceled)

20. (Previously presented) A method of producing a food product, said method comprising harvesting a food product from a non-human transgenic mammal of Claim 1, wherein said food product is milk.

21. (Previously presented) A method of producing a food product, the method comprising processing a food product harvested from a non-human transgenic mammal of Claim 1, wherein said food product is milk.

22.-32. (Canceled)

33. (Previously presented) The transgenic mammal of claim 1, wherein said mammal is a female that produces milk comprising a level of polyunsaturated fatty acids (PUFA) that is at least 5% higher than the level of PUFA in milk produced by a non-transgenic mammal of the same species.

34. (Canceled)

35. (Previously presented) The transgenic mammal of claim 1, wherein said mammal is a female that produces milk comprising a level of saturated fatty acids (SFA) that is at least 5% lower than the level of SFA in milk produced by a non-transgenic mammal of the same species.

36. (Previously presented) The transgenic mammal of claim 1, wherein said mammal chosen from a goat, a cow, and a sheep.

37. (Canceled)

38. (Previously presented) The transgenic mammal of claim 1, wherein said mammal is a female that produces milk comprising a level of conjugated linoleic acid (CLA) that is at least 5% higher than the level of CLA in milk produced by a non-transgenic mammal of the same species.

39. (Previously presented) The transgenic mammal of claim 1, wherein the mammary gland-specific promoter is a β -lactoglobulin promoter.

40. (Previously presented) The transgenic mammal of claim 1, wherein the mammary gland-specific promoter is a β -casein promoter.

41. (Previously presented) The transgenic mammal of claim 1, wherein the mammary gland-specific promoter is an α S1-casein promoter.

42. (Previously presented) The transgenic mammal of claim 1, wherein the mammary gland-specific promoter is an α S2-casein promoter.

43. (Previously presented) The transgenic mammal of claim 1, wherein the mammary gland-specific promoter is a whey acid protein promoter.

44.-48. (Canceled)